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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,553	11/21/2003	Richard Albert Jones	604-700	8476
23117	7590	03/30/2006	EXAMINER	
NIXON & VANDERHYE, PC 901 NORTH GLEBE ROAD, 11TH FLOOR ARLINGTON, VA 22203			COLE, ELIZABETH M	
			ART UNIT	PAPER NUMBER
			1771	
DATE MAILED: 03/30/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,553	Applicant(s) JONES ET AL.	
	Examiner Elizabeth M. Cole	Art Unit 1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed:
- 6) ☒ Claim(s) 27-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/25/06 has been entered.

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 27-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 10-16 of copending Application No. 10/496,500 in view of Alei, U.S. Patent No. 4,600,631. Claims 10-16 of '500 disclose the claimed invention except that they do not recite crosslinking the polymer and do not disclose the amount of polymer melt which binds the fibers. With regard to the amount of the polymer melt, it would have been obvious to have melted a sufficient amount to provide strong bonds between the fibers. Alei

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teaches that crosslinking the oriented fibers before molding enhances the thermal stability of the fibers.

This is a provisional obviousness-type double patenting rejection.

3. Claims 27-33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 16-22 of copending Application No. 10/496,294 in view of Alei, U.S. Patent No. 4,600,631.

Claims 16-22 of '294 disclose the claimed invention except that they do not recite crosslinking the polymer and do not disclose the amount of polymer melt which binds the fibers. With regard to the amount of the polymer melt, it would have been obvious to have melted a sufficient amount to provide strong bonds between the fibers. Alei teaches that crosslinking the oriented fibers before molding enhances the thermal stability of the fibers.

This is a provisional obviousness-type double patenting rejection.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ward et al, U.S. Patent No. 5,628,946 in view of Alei et al, U.S. Patent No. 4,600,631.

Ward et al discloses a homogenous polymeric monolith which is formed by compressing an assembly of oriented polyolefin fibers at an elevated temperature in order to melt a

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proportion of the polymer which then recrystallizes and binds the fibrous material. See abstract, as well as col. 1, lines 39-67. The proportion of polymer which is melted can be anywhere from 5 to 50% of the polymer. See col. 2, lines 15-21. Suitable polymers include polyethylenes having a weight average molecular weight of from 50,000 to 3,000,000. See col. 3, lines 52-54. The polymer fibers are melt spun. See col. 4, lines 14-27. With regard to claim 33, the limitation of "up to" means that no filler can be present. Ward et al differs from the claimed invention because Ward et al does not teach crosslinking the polymeric fibers and does not teach the claimed gel fraction. Alei discloses molded polymeric materials comprising a molding formed from oriented polyolefin fibers. Alei teaches that crosslinking the fibers enhances the thermal stability of the fibers and to maintain the orientation of the fibers. See abstract. Alei teaches that the crosslinking can be performed by irradiation. See 2, lines 36-59. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have crosslinked the fibers of Ward. One of ordinary skill in the art would have been motivated to crosslink the fibers of Ward by the teaching of Alei that this would enhance the thermal stability and maintain the orientation of the fibers. With regard to the gel fraction, to have selected the appropriate gel fraction through the process of routine experimentation in order to arrive at a gel fraction which produced optimum thermal stability and maintained the orientation of the fibers without negatively affecting the ability of the fibers to melt and bond.

With regard to the process steps set forth in the claims, since Alei teaches that the crosslinked fibers do not melt and flow the crosslinking process would take place after

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the melting and compressing step of Ward. Therefore, Alei and Ward do not teach the particularly claimed process. However, the instant claims are drawn to a product.

Product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. "Even though product - by process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product - by - process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir. 1983). Therefore the burden is on Applicant to show that the order of the crosslinking and melting steps would result in an unobvious difference between the claimed product and the prior art product.

6. Applicant's arguments filed 12/23/05 have been fully considered but they are not persuasive. Applicant argues that the combination of Ward and Alei does not render the claimed invention obvious because Alei teaches that crosslinking turns a thermoplastic material into a thermosetting resin so that the thermoplastic material no longer melts when heated. However, Ward teaches forming the compressed assembly of oriented fibers which are bound together by a portion of the fibers which is melted

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and recrystalizes and binds the fibers together. Therefore, the melting and bonding of the fibers of Ward would already be complete before the crosslinking process was undertaken. Alei teaches that the crosslinking process further strengthens and stabilizes the thermoplastic material. The crosslinking process would not be undertaken until the material was in finished form. As set forth above, the burden is on Applicant to show that the different order to steps would result in an unobvious difference between the claimed invention and the prior art product.

7. With regard to the double patenting rejections over the co-pending applications, these are maintained at this time. If in the future all other issues are resolved and the case is ready for issue and none of the co-pending application have been issued at that time, then the rejections will be withdrawn. Since 10/477,122 is abandoned, that rejection is withdrawn.

8. With regard to the 112 2nd paragraph rejection, that rejection was overcome by Applicant in the previous amendment and should have been omitted from the previous rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

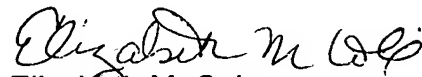
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you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.



Elizabeth M. Cole
Primary Examiner
Art Unit 1771

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